

**Claim****[1]**

A coaxial cable comprising a core conductor, an insulator arranged  
5 around the outer periphery of the core conductor, and an outer conductor  
arranged around the outer periphery of the insulator coaxially relative to the  
core conductor, wherein the Young's modulus of the core conductor is 245 GPa  
or more and the electrical conductivity is 20 %IACS or more.

**[2]**

10 A coaxial cable as defined in claim 1, wherein the core conductor is made  
of a single solid wire having an outer diameter of 0.01 mm or more and not  
more than 0.2 mm.

**[3]**

A coaxial cable as defined in claim 1, wherein the core conductor has a  
15 tensile strength of 2450 MPa or more.

**[4]**

A coaxial cable as defined in claim 1, wherein the core conductor has a  
plated layer on the surface thereof, the plated layer comprising one or more  
kinds of metallic materials selected from the group consisting of Cu, Ni, Sn, Au,  
20 Ag, Pd, and Zn, the thickness of the plated layer being 5  $\mu\text{m}$  or less.

**[5]**

A coaxial cable as defined in claim 1, wherein the core conductor is made  
of one or more kinds of metals selected from the group consisting of tungsten,

**molybdenum, tungsten alloy, and molybdenum alloy.**